

Appl. No. : 09/471,071
Filed : December 21, 1999

1. (Original) A method of determining the coaptation axis of a valve, comprising the steps of:

positioning a device within the valve, the device moveable in response to opening and closing of the valve; and

observing the device when the valve is closed, to determine the orientation of the coaptation axis.

2. (Original) A method of determining the coaptation axis of a valve as in Claim 1, wherein the positioning step comprises transluminally positioning.

3. (Original) A method of determining the coaptation axis of a valve as in Claim 2, comprising the steps of transluminally advancing the device through the aortic valve and into the mitral valve.

4. (Original) A method of determining the coaptation axis of a valve as in Claim 2, comprising the steps of transluminally advancing the device into the right atrium and across the atrial septum into the mitral valve.

5. (Original) A method of determining the coaptation axis of a valve as in Claim 1, wherein the positioning step comprises positioning a plurality of radiopaque markers within the valve.

6. (Original) A method of positioning an implant within the coronary sinus, comprising the steps of:

positioning a radiopaque device within the mitral valve;

visualizing the radiopaque device; and

positioning the implant within the coronary sinus in a preselected relationship to the radiopaque device.

7. (Original) A method of positioning an implant as in Claim 6, wherein the radiopaque device is movable in response to closing of the mitral valve.

8. (Original) A method of positioning an implant as in Claim 7, wherein the radiopaque device comprises a plurality of radiopaque markers which align in response to closing of the valve to conform to the coaptive edges of the valve leaflets.

9. (Original) A method of positioning an implant as in Claim 6, wherein the positioning step comprises positioning the implant such that it applies pressure on the P2 leaflet of the mitral valve.

Appl. No. : 09/471,071
Filed : December 21, 1999

10. (Original) A method of determining the coaptation axis of the mitral valve, comprising the steps of:

advancing the distal end of a catheter through the left ventricle to a position adjacent the mitral valve;

deploying a radiopaque target from the distal end; and

observing the alignment of the radiopaque target in response to closing of the mitral valve.

11. (Original) A method as in Claim 10, wherein the deploying step comprises deploying a plurality of radiopaque markers.

12. (Original) A method as in Claim 11, wherein the deploying step comprises deploying a plurality of wires.

13. (Original) A method as in Claim 11, wherein the deploying step comprises deploying an expandable basket.

14. (Withdrawn) A leaflet orientation device, for determining the coaptive axis of a valve, comprising:

an elongate, flexible tubular body, having a proximal end and a distal end; and

a conformable radiopaque target carried by the distal end;

wherein the target is conformable in response to closing of the valve to align with the coaptive edges of valve leaflets.

15. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target comprises a plurality of wires.

16. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target comprises a pig tail support.

17. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target comprises a collapsible basket.

18. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target is axially movable with respect to the tubular body.

19. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target comprises a balloon.

Appl. No. : 09/471,071
Filed : December 21, 1999

20. (Withdrawn) A leaflet orientation device as in Claim 14, wherein the conformable target is movable between a retracted position within the catheter for transluminal advance and an extended position for determining valve leaflet orientation.

21. (Original) A method of determining the coaptation configuration of a valve, comprising the steps of:

providing a conformable target, having a primary axis;

positioning the conformable target in the path of a valve leaflet; and

visualizing the target along a viewing axis which is transverse to the primary axis, in the vicinity of the valve leaflet.